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About RPM Plus

RPM Plus works in more than 20 developing countries to provide technical assistance to strengthen drug and health commodity management systems. The program offers technical guidance and assists in strategy development and program implementation both in improving the availability of health commodities—pharmaceuticals, vaccines, supplies, and basic medical equipment—of assured quality for maternal and child health, HIV/AIDS, infectious diseases, and family planning and in promoting the appropriate use of health commodities in the public and private sectors.

Recommended Citation

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## ACRONYMS

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<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ABC/VEN</td>
<td>Method of ranking and analyzing drug products according to the value of products used and the degree to which they are vital, essential or nonessential (VEN)</td>
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<tr>
<td>AMR</td>
<td>antimicrobial resistance</td>
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<tr>
<td>ARCH</td>
<td>Applied Research for Child Health (project)</td>
</tr>
<tr>
<td>ARV</td>
<td>antiretroviral</td>
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<tr>
<td>CBA</td>
<td>Cost–Benefit Analysis</td>
</tr>
<tr>
<td>CE</td>
<td>continuing education</td>
</tr>
<tr>
<td>CEA</td>
<td>Cost–Effectiveness Analysis</td>
</tr>
<tr>
<td>DSPRUD</td>
<td>Delhi Society for Promotion of Rational Use of Drugs</td>
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<tr>
<td>DTC</td>
<td>Drug and Therapeutics Committee</td>
</tr>
<tr>
<td>DUE</td>
<td>Drug Utilization Evaluation</td>
</tr>
<tr>
<td>EBM</td>
<td>Evidence–Based Medicine</td>
</tr>
<tr>
<td>EDL</td>
<td>essential drug list</td>
</tr>
<tr>
<td>EDM</td>
<td>Department of Essential Drugs &amp; Medicines Policy [WHO]</td>
</tr>
<tr>
<td>ERC</td>
<td>Electronic Resource Center [MSH]</td>
</tr>
<tr>
<td>ICIUM</td>
<td>International Conference on Improving Use of Medicines [WHO]</td>
</tr>
<tr>
<td>INRUD</td>
<td>International Network for Rational Use of Drugs</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>monitoring and evaluation</td>
</tr>
<tr>
<td>MSH</td>
<td>Management Sciences for Health</td>
</tr>
<tr>
<td>MOF</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>MOH</td>
<td>Ministry of Health</td>
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<tr>
<td>NDP</td>
<td>national drug policy</td>
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<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>NPTC</td>
<td>National Pharmacy and Therapeutics Committee [Kenya]</td>
</tr>
<tr>
<td>OPD</td>
<td>outpatient department</td>
</tr>
<tr>
<td>REDSO</td>
<td>Regional Economic Development Services Office [USAID]</td>
</tr>
<tr>
<td>RLI</td>
<td>Regional Logistics Initiative [USAID]</td>
</tr>
<tr>
<td>RPM Plus</td>
<td>Rational Pharmaceutical Management Plus (Program) [MSH]</td>
</tr>
<tr>
<td>RUD</td>
<td>rational use of drugs</td>
</tr>
<tr>
<td>STGs</td>
<td>standard treatment guidelines</td>
</tr>
<tr>
<td>TOR</td>
<td>terms of reference</td>
</tr>
<tr>
<td>USAID</td>
<td>U.S. Agency for International Development</td>
</tr>
<tr>
<td>USP</td>
<td>United States Pharmacopoeia</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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</table>
Antimicrobial resistance (AMR) continues to be a threat to health worldwide and the problem is growing at an alarming rate. Increasing rates of AMR can generally be traced to inappropriate prescribing and use of antimicrobials as well as the inappropriate use of antimicrobials in agriculture and animals. Not only do these problems increase morbidity and mortality, but they also divert financial resources that could otherwise be used for other health care problems.

In 1997, the Rational Pharmaceutical Management (RPM) Program co-sponsored the First International Conference on Improving Use of Medicines (ICIUM) in Chiang Mai, Thailand. RPM’s international partners included the Applied Research for Child Health Project (ARCH), the International Network for Rational Use of Drugs (INRUD), the United States Pharmacopoeia (USP), and the World Health Organization (WHO) Action Program on Essential Drugs (WHO/DAP). During this conference, RPM and partners identified the following activities to address the problem of irrational drug use, particularly with regard to antimicrobials:

- Indicators to study antimicrobial use in hospitals
- Effective Drug and Therapeutics Committees (DTCs)
- Research initiatives on improving prescribing and dispensing practices, improving community use of medicines, and developing effective pharmaceutical policies and regulations.

The conference recommended that DTC training materials be developed to improve the functions of this drug management committee. Drug and Therapeutics Committees have been in existence for many years, but their effectiveness in improving drug use in most settings is problematic. Training materials to increase capacity and improve outcomes from the DTC were not available at the time of the conference. RPM and Rational Pharmaceutical Management Plus (RPM Plus) programs have been committed to developing and implementing these training materials to assist in the improvement of DTCs in developing countries.

RPM Plus and WHO have presented DTC training courses in 12 countries, training over 365 participants. This important course work provides formal presentations, discussions, activities, and field studies to educate participants about technical functions of the DTC. Participants are expected to learn concepts that will be utilized to improve their home country national or hospital DTC. Outcomes from this training course would be improved selection of drugs, a more efficient drug delivery system, improved assessment of drug use in hospitals, the use of strategies to rationalize drug use, and ultimately improved patient care.

Follow-up activities for DTC training courses include the monitoring of workplans and the provision of technical assistance as requested. As a part of RPM Plus follow-up activities, this workshop was planned and developed to provide a forum for participant’s experiences, workplan progress, accomplishments, and future plans to improve DTCs and drug use. During this workshop, interventions were developed to further enhance national and local hospital DTC programs. As a part of this DTC follow up, RPM Plus promotes the use of the recently developed tool to assess the antimicrobial drug therapy in hospitals as well as other assessment tools. It is anticipated that participants at the DTC course will utilize the manual to conduct an
antimicrobial drug use assessment study in their home country as a baseline monitoring and evaluation tool in a drug use improvement strategy.

**Purpose of Trip**

Purpose of the trip was to conduct the first Drug and Therapeutics Committee workshop for past participants of DTC training courses. This was a collaborative effort with the World Health Organization, the United States Agency for International Development’s (USAID) Regional Economic Development Services Office (REDSO), EQUITY, and the Central Board of Health in Zambia.

The goals of the workshop are to explore what factors are important to make a DTC more effective and sustainable and to provide a forum on participant’s experiences, workplan progress, accomplishments, and future plans to improve DTCs and drug use. During this workshop, technical assistance will be provided and interventions developed to further enhance national and local hospital DTC programs.

**Scope of Work**

1. Scope of Work for the team is as follows:

   - **Terry Green**
     - Act as co-director of the DTC Workshop
     - Conduct formulary management, standard treatment guidelines, and DTC overview sessions
     - Moderate participant presentations and discussions
     - Assist participants to make workplans for future work
     - Brief/debrief USAID officials if requested

   - **Sandhya Rao**
     - Conduct M&E session during workshop
     - Interview participants and prepare a lessons learned/case study document on barriers and facilitators to DTC implementation
     - Assist participants in the preparation of workplans and performance monitoring plans
ACTIVITIES

*Terry Green*

Co–direct the *Training Course on Drug and Therapeutics Committees and facilitate DTC principles and practices.*

Terry Green, in cooperation with WHO/Essential Drugs and Medicines Policy department (EDM), co–directed and served as the primary facilitator for presentations and activities for the three–day Drug and Therapeutics Training course. The Drug and Therapeutics Committee Workshop was planned, organized, and implemented in collaboration with WHO/EDM, REDSO, and EQUITY.

During the Workshop, four technical sessions were presented and moderated.

- Participant presentations of past DTC–related work activities including progress on workplans and accomplishments in DTC activities.
- Group discussion and presentations concerning key DTC technical areas including problem areas and potential solutions
- M&E presentation and discussion
- Workplan development

**Participant Presentations on DTC Activities**

These presentations showed a variety of activities including formulary management, assessment of drug use and strategies to improve drug use [drug use evaluation (DUE), standard treatment guidelines (STGs), and education programs], training programs/workshops on DTC, and advocacy programs at the national level. Individual and group powerpoint presentations are provided in a zip file in Annex 4. The following is a summary of the activities/achievement, results of these activities, problem identification, and potential solutions.
<table>
<thead>
<tr>
<th>Activities/achievements and results of these activities</th>
<th>Major Problems</th>
<th>Potential Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delhi</td>
<td>Lack of awareness by administrators and lack of support</td>
<td>Group meetings and brainstorming create awareness</td>
</tr>
<tr>
<td>Delhi EDL, drug quality, training on RUD, development of STG, Patient education, ABC analysis, drug studies, training programs</td>
<td>Formulary management issues</td>
<td>Constitute DTC at higher level, consistent effort by DTC members needed</td>
</tr>
<tr>
<td>Mumbai EDL, STGs, training for clinicians, drug studies, establishment of DTC, Drug Management Policy for Hospital, training programs</td>
<td>Procurement of drugs is a continuing problem (EDL and procurement list are different)</td>
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<tr>
<td>Mumbai</td>
<td>Lack of administrative and financial support</td>
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<tr>
<td>Kenya- Gertrude’s Garden Hospital</td>
<td>Lack of competent pharmacy personnel</td>
<td></td>
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<tr>
<td>Kenya- Gertrude’s Garden Hospital Formulary management, drug studies (prescribing Indicators and treatment audits), protocol development, drug and supplier evaluation for tenders, guidelines for medical representatives, target CE for providers, revision of treatment protocols, DTC quarterly newsletters, DTC TOR, Essential Acute Care Handbook for the OPD, ARV use in Peds guideline, guidelines on nurse prescribing, poison management protocol, vaccine protocol, policy on generic drug substitution, DTC newsletter, Drug Use Reviews, drug studies (antibiotic, injections, generic use, prescribing)</td>
<td>Management unhappy with success of DTC as there is a decrease in drug revenues</td>
<td>Printing and implementation of STGs</td>
</tr>
<tr>
<td>Kenya- Gertrude’s Garden Hospital Results - improved use of drugs, lower drug costs</td>
<td>Pharmaceutical company influence</td>
<td></td>
</tr>
<tr>
<td>Kenya- Gertrude’s Garden Hospital</td>
<td>Decline in generic substitution</td>
<td></td>
</tr>
<tr>
<td>Kenya- Gertrude’s Garden Hospital</td>
<td>Lack of funding for DTC activities</td>
<td></td>
</tr>
<tr>
<td>Kenya- Gertrude’s Garden Hospital</td>
<td>STGs published but no money to print</td>
<td></td>
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<tr>
<td>Kenya – National</td>
<td>Policy makers have no training in DTC activities</td>
<td></td>
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<tr>
<td>Kenya – National DTC core group formed to establish DTCs in government</td>
<td>Incomplete implementation of National Drug Policy</td>
<td>Establish NPTC as part and parcel of MoH pharmaceutical division</td>
</tr>
<tr>
<td>Kenya – National Results - Ministry of Health interested and committed in establishing DTC countrywide,</td>
<td></td>
<td></td>
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<tr>
<td>Kenya – National</td>
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<td></td>
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<tr>
<td>Country</td>
<td>National Efforts</td>
<td>Challenges</td>
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<td>------------</td>
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<td>-----------------------------------------------------------------------------</td>
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<tr>
<td>Kenya - MEDS</td>
<td>Training is provided to DTC members on appropriate functions, formulary management, stocking patterns monitored. <strong>Results</strong> - improved use of drugs, drug information for prescribers, 75% of NGO now has DTCs.</td>
<td>Lack of dedicated and motivated focal point/driving force. DTC course at national level.</td>
</tr>
<tr>
<td>Peru</td>
<td>Formulary management, STG development and implementation, drug studies (STG compliance), ABC analysis. <strong>Results</strong> - use of generics increasing, STG compliance monitored and improved.</td>
<td>Not enough time. Marketing by commercial laboratories. Feeling that generic drugs are not of high quality. Inadequate regulations for introducing new drugs. Physicians do not understand social role that is required with their position. Do not follow clinical guidelines.</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Formularies developed in many hospitals, DTC training activities, supply management problems studied, STGs available. <strong>Results</strong> - improved availability of drugs, improved team spirit.</td>
<td>Attrition of key personnel. Promotion of private sector. Lack of sustainability for the training and supervision. Lack of pharmacy personnel. Inadequate training of DTC members.</td>
</tr>
<tr>
<td>Moldova</td>
<td>Workshops and conferences featuring DTGs, articles written for newsletters, networking with government officials concerning the establishment of DTCs. <strong>Results</strong> - DTCs established, MoH issued regulations establishing.</td>
<td>Formulary management is difficult (3 different list-hospital, procurement, insurance). Lack of training for all DTC members. Lack of qualitative and quantitative studies (and training) to support DTC activities.</td>
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### DTCs

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
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</thead>
<tbody>
<tr>
<td>Pharmacist role is very limited in Moldova</td>
<td></td>
</tr>
<tr>
<td>Lack of computers and other data processing equipment in hospitals and lack of skills</td>
<td></td>
</tr>
<tr>
<td>DTC do not have influence on drug procurement</td>
<td></td>
</tr>
<tr>
<td>Need M&amp;E programs</td>
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</tbody>
</table>

### Ghana

<table>
<thead>
<tr>
<th>Country plan developed for DTCs, DTC training provided to key players</th>
<th>Need to establish more DTCs in country</th>
<th>Training programs have been presented and more will be expanded over the next year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results – Commitment by MoH to establish DTCs nationwide</td>
<td>Strengthen existing DTC to enhance their activities and outcomes</td>
<td>Motivate DTC members</td>
</tr>
<tr>
<td></td>
<td>Lack of funding for key activities of the DTC</td>
<td>Integrate DTCs into rational drug use activities</td>
</tr>
<tr>
<td></td>
<td>M&amp;E activities are needed and considered essential</td>
<td></td>
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<tr>
<td></td>
<td>DTC members require payment</td>
<td></td>
</tr>
</tbody>
</table>

### Eritrea

<table>
<thead>
<tr>
<th>DTC established at national level, implementation of EDL and National formulary and treatment guidelines</th>
<th>Lower level hospital DTC have not been established</th>
<th>Continue to promote the development (MoH) of DTCs in 5 referral hospitals in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results – National level DTC developed. Prescribing is within EDL</td>
<td>Limited activities in the National DTC</td>
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</tr>
</tbody>
</table>

### Zambia (Lusaka Urban DTC)

<table>
<thead>
<tr>
<th>Routine surveillance of drug situation, drug surveys (drug availability and use, prescribing practices), educations programs provided (workshops)</th>
<th>Staff shortage</th>
<th>Increase pharmacy personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results – establishment of DTCs at health centers</td>
<td>Lack of transport for supervision</td>
<td>Supervision and training</td>
</tr>
<tr>
<td></td>
<td>District DTC membership not constant</td>
<td>Activation of clinical meetings</td>
</tr>
<tr>
<td></td>
<td>Lack of pharmacy stores</td>
<td>Identify incentives</td>
</tr>
<tr>
<td></td>
<td>Lack of pharmacy information sources</td>
<td>Clearly identify the value in a DTC</td>
</tr>
<tr>
<td></td>
<td>Lack of time</td>
<td></td>
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</tbody>
</table>

### Zambia (National)

<table>
<thead>
<tr>
<th>Training provided to all districts, DTCs established at district level, activities funded by Administration, formulary management</th>
<th>M&amp;E indicators not developed</th>
<th>Recruitment of provincial pharmacist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results – recognized role/functions, improved selection/procurement and approval by DTC</td>
<td>System to link with national formulary committee not established</td>
<td>NFC and DTC communications need to be opened</td>
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<tr>
<td></td>
<td>Delays in approving STGs</td>
<td>Publish STGs</td>
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<td></td>
<td>Poor attendance at meetings</td>
<td>Define DTCs in hospitals</td>
</tr>
<tr>
<td></td>
<td>Hospitals have DTCs but roles and functions not defined</td>
<td>Promote and monitor the use of STGs</td>
</tr>
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</table>
 Technical Area Discussions

Technical area discussions and presentations centered around eight major challenges or problem areas. These were identified from participant presentations on their activities and identified problems. These challenges/problems include the following:

- No functional DTC: Getting started
- Dysfunctional DTC
- STGs
- Lack of resources
- Successful DTCs and decreasing incomes
- Influence of the Pharmaceutical Industry
- Lack of Institutional Commitment and Support
- Non-Compliance with STGs
- Non-compliance with formulary or essential drug list (EDL)

The following is summary and a review of problems and solutions concerning a DTC. See Annex 5 for a complete of discussions at the workshop that includes problems, solutions, and evaluation criteria.
No DTC Available in Facility

Challenge/Problem: The non–existence of DTCs is a problem in all countries but especially in Eritrea, Ghana, and Kenya. The main problems include lack of marketing strategies, lack of well–defined roles and training, and lack of political will with major players. The resistance to establishing a DTC is also related to some aspects of corruption—people thrive on the drug business and a DTC will be an obstacle for transferring perverse incentives.

Solutions: These solutions include the development of a marketing plan that will promote the DTC to all important stakeholders. Everyone seems to agree that there is an incredibly real need to collect evidence at the hospital to show administrators the need for this type of activity. Another key element in the success of a DTC is the training of DTC members to ensure appropriate skills in the development and implementation of a DTC.

Dysfunctional DTC

Problem: Even among this group of highly active DTC members there is a significant problem of instituting DTCs on a large scale. This is true in Eritrea, Ethiopia, Ghana, and Kenya. The main problems were lack of training for DTC members, lack of commitment, lack of drug information resources, infrequent/poorly attended meetings, and lack of ownership.

Potential solutions:
- Collect evidence of drug use and drug selection problems so as to convince administrators for the need of a DTC
- Advocate and provide evidence of DTC impact; show what others have done
- Start by convincing others that there is a problem
- Present evidence in economic terms
- Add prestige to involvement on the DTC
- Present evidence in economic terms
- Increase and enforce accountability at all levels of the DTC

Lack of resources for DTC functions

Challenge/Problems: These problems include lack of human, financial, material resources. DTC lacks marketing strategies and well–defined roles and functions. There is also a distinct lack of political will in government and at the hospital administration level.

Solutions include the following:
- Create awareness of roles and functions and subsequently convince administrative authorities (marketing activities)
- Collect evidence of problems in the health care system and then present this to appropriate leaders
- Develop mission statement and goals
- Training members in DTC functions and activities
- Management representation on DTC
- Government commitment to ensure sustainability
- Convince management to increase resources
- Appropriate terms of references (TORs) for DTCs and committee members
- Develop local solutions based on existing resources
- Include DTC budget
- Incentives—training, research, allowances
- Government commitment to ensure sustainability

**Lack of institutional commitment and support**

Challenge/Problems: poor financial situation, inadequate infrastructure (computers), lack of necessary manpower, lack of recognition, poor administrative support, and lack of transparency from the committee and administration support structure

Solutions include:
- Share evidence of DTC activities with management
- Sensitize the awareness about roles and functions of the DTC to management
- Strengthen managements’ commitment by their representation on the committee
- Advocate for transparency
- Build a critical mass of DTC activities to show administration the value of the committee

Success of DTC rational use of drugs (RUD) program and the impact of decreasing revenues

Challenge/Problem: As RUD improves, income may decrease due to more appropriate use of drugs. DTCs may then have a disincentive to actually function appropriately

Solutions include the establishment of national health insurance, change in focus from profits on products to payment for professional services (especially pharmacy services), and the improvement in pharmacy services at the hospital level in order to charge for specific services rather than just products.

**Influence of Pharmaceutical Industry**

Challenges/Problems: Drug representatives are the main source of drug information for many physicians. They present many unethical influences on the way drugs are procured and used. Drug companies use respectable consultants to launch new drugs and this tends to sway hospitals and clinics to use their drugs. Influence by the companies is extremely high in most facilities.

Solutions to drug company influences include implementing enforceable laws and regulations that help control pricing, ethics, clinical trials, drug donations. There needs to be protocols established within each DTC that clearly state how the hospital will interact with pharmaceutical industry. There needs to be controls on gifts and other incentives from the pharmaceutical industry in order to prevent perverse incentives reaching clinicians at the hospital. Most importantly, the DTC needs to embrace evidence based information for guiding decisions about on drug selection and use. All professionals need to abide by a code of ethics within the workplace.
Lack of Institutional Commitment and Support

Challenges/Problems: The main problems here include lack of manpower and lack of support and recognition from administration. These problems are universal for DTCs and other organizations as well.

Solutions: Share the evidence of DTC activities and success with managements. Administration needs to be a part of the committee and obtain ownership of the committee’s success. Need to build a critical mass of activities in order to show DTC importance to management. DTCs must have a multi-pronged approach for true sustainability which includes working with all hospitals departments, stakeholders, especially administration. Committee must have wide representation from hospital professionals and a strong, respected chair to lead and implement activities.

Non–Compliance with STGS

Challenge/Problem: STGS may have been developed properly, but without sufficient involvement of experts in the institution. Healthcare staff within the facility may not have actually been sensitized in the use of these STGs.

Solutions: Specific training to health care professionals is necessary to sensitize and motivate clinicians. There needs to be improved supervision and peer review. An important part of the use of STGs is the introduction of these instruments into medical schools so that graduates would have been sensitized and willing (and expect) to use STGs. And lastly, STGs need to be realistic treatment protocols that have substantial buy-in from clinicians before they are introduced. Another important factor in success—drugs should not be dispensed by the pharmacy unless STGs are explicitly followed.

Non–Compliance with EDL or Formulary

Challenge/Problem: Drug procurement is not linked to EDL/formulary. EDL/formulary is not disseminated especially well and there are no links between EDL and STG. There is no regular update of the list. Prescribers use drugs outside of the EDL

Solutions:

- DTC should collect and present evidence from facilities regarding problems associated with non-compliance to EDL/formulary
- Link drug procurement to EDL/formulary
- Need to popularize/sensitize the EDL/formulary to all facilities and all practitioners
- Pass regulation that compels generic prescribing
- Popularize EDL to all facilities
- Government should adopt EDL, implement it, enforce it, and procure drugs accordingly
Workplan Development

Participants were asked to develop workplans for future DTC related activities. These workplans were to include basic M&E monitoring that included the development indicators for monitoring the outcomes of these workplans. See Annex 7 for each individual or group workplan that were developed at the workshop.

Brief/debrief USAID officials if requested
USAID/Zambia was briefed about the Workshop on June 4, 2003 by Oliver Hazemba. Goals, objectives and potential outcomes were discussed in this meeting at USAID.

Sandhya Rao
Activities

- Conduct M&E session during workshop

Sandhya Rao facilitated the session on monitoring and evaluation of DTCs on the last day of the workshop. It was entitled “Monitoring the Performance of Drug and Therapeutics Committees” The session generated a good deal of discussion among the participants, many of whom felt that monitoring performance was needed to determine successes and limitations of approaches. Participants also felt that gathering systematic data on performance was necessary to build evidence of the impact and importance of DTCs that could be used for raising funds for DTCs and advocating for the development of new DTCs. Further comments from the participants on this session can be found in the participant evaluation summary (Annex 6)

- Interview participants and prepare a lessons learned/case study document on barriers and facilitators to DTC implementation

During the workshop, Ms. Rao gathered data from participants on lessons learned and will be preparing a summary document on barriers and facilitators to DTC implementation. The document will include information on RPM Plus involvement in the promotion of DTC efforts around the world, success stories, and challenges faced. The workshop also generated discussion on potential solutions to challenges posed during DTC implementation and will be included in the paper.

- Assist participants in the preparation of workplans and performance monitoring plans

Participants developed workplans which included outcomes and outcome measures (indicators) during the final day of the workshop. Developing full performance monitoring plans was not feasible during the workshop itself but the components of such plans were presented in a handout (and in CD-ROM) and discussed during the presentation on monitoring performance facilitated by Rao.

Collaborators and Partners

RPM Plus collaborated with the following organizations and individuals in the preparation of the workshop materials and the organization/implementation of the training course.
World Health Organization
   Dr. Kathy Holloway, Medical Officer, Department of Essential Drugs and Medicines Policy

REDSO
   Rosalind Kirika, RLI

Management Sciences for Health/ Zambia
   Oliver Hazemba

Managements Sciences for Health/South Africa
   Jean-Pierre Sallet
NEXT STEPS

Immediate Follow-up Activities and Recommendations

Part of the workshop activities for the 24 participants was to make workplans for their activities over the next 12 months in either strengthening their own DTC or planning to do courses promoting DTCs. Plans have been developed and written by the participants at the workshop and these have been transcribed and returned to the participants. See Annex 7 for a listing of all workplans prepared during the workshop. Follow-up of these plans will be done by Management Sciences for Health over the following year and whenever possible the local facilitators MSH/Zambia using e-mail, fax, and site visits.

RPM Plus and WHO will continue discussions on the value of this workshop and the feasibility of having other workshops in Asia and Latin America.

Agreement or Understandings with Counterparts

RPM Plus will continue to collaborate with WHO on presentation of DTC courses and workshops. The next scheduled training course is May 2004, tentatively planned for a country in West Africa. Actual site and date is to be determined and is contingent on workplan approval for year 4 of the RPM Plus program. WHO and RPM Plus will continue to coordinate the revisions of the training course materials as necessary.

Lessons Learned

Sandhya Rao will prepare a lessons learned document for DTCs. This document will be distributed to USAID, workshop participants, and other interested parties.
ANNEX 1
Participants Profile

NAMES & ADDRESSES OF PARTICIPANTS
DTC WORKSHOP
PROTEA HOTEL LUSAKA SAFARI LODGE
LUSAKA, ZAMBIA
25th – 27th JUNE 2003

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ANNEX 3

Drug and Therapeutics Committee Workshop
Lusaka, Zambia
June 24-27

Program

Tuesday, June 24

7:00pm
Introductions
Opening Dinner

Wednesday, June 25

9:00am-10:00
Welcome (MoH)
Introduction
Objectives
Overview of DTC training courses and results

10:30am-11:00am
Strengthening Commodity Management Systems to Improve Drug Use and Contain Antimicrobial Resistance

11:00 am- 11:30 pm
Lusaka Urban District Management Team DTC

11:30am-12:30pm
Group Discussion of DTC progress

12:30- 2:00pm - Lunch

2:00pm – 2:30pm
Preparation for Group Presentations

2:30pm-4:30pm
DTC Participant Presentations (Groups 1-4)
THURSDAY, JUNE 26

8:30am - 10:30am
DTC Challenges and Solutions
  Getting Started
  Formulary Management

10:30am – 12:30pm
DTC Challenges and Solutions
  Identifying Drug Use problems

12:30- 2:00pm - Lunch

2:00-4:30 pm
DTC Challenges and Solutions -
  Interventions to improve drug use

FRIDAY, JUNE 27

8:30am - 11:00am
Monitoring the Performance of the DTC

11:00am-12:30pm
Workplan and Performance Monitoring/Evaluation Plans

12:30-2:00pm – Lunch

2:00pm – 4:00pm
Group, individual, and poster workplan presentation

4:00-4:30pm
Summary and Evaluation
ANNEX 4
Participant Presentations

New WinZip File.zip
ANNEX 5
SUMMARY OF PARTICIPANT DISCUSSION
TECHNICAL AND PROBLEMS AREAS

Non-Functional DTCs

Problems

Infrequent meetings
Poor attendance
Lack of trained personnel for membership
Lack of records, minutes, agenda for meetings
Lack of resources and reference materials
Lack of commitment
Lack of ownership

Often DTCs organized (or DTC functions carried out) b/c donors require EDLs and STGs before providing certain drugs (e.g., TB). Donors require rationalized drug use before donating (they want to see evidence). Therefore DTC goals are not “owned” by members but rather “driven” externally.

Solutions

Work with key role players in the DTCs
Advocate and provide evidence of DTC impact – show what others have done
Increase/enforce accountability
Have specific TOR
Have a transparent goal – how do you know you are going to get there if you don’t know where you are going? (South Africa)
Empower everyone regardless of their qualification or position
Compulsory attendance at meetings
Present evidence to administrators to motivate and educate them
Add prestige to involvement in DTCs
Have a focal person, have a TOR for that person
Add accountability through staff appraisal
Do focus group discussion about the underlying causes of non-functional DTCs – who wants DTCs? Who is responsible? What do you want to address through the DTC?
Start by convincing others that there is a problem
Start with problems that have been identified, even if somewhat peripheral to DTCs
Ask administration what they think about what DTCs can do for them
Ask about economic savings – advantages of reducing unnecessary AM use
Present evidence in economic terms
Holistic approaches to DTCs – how you can save money, direct resources from savings to other health care programs (needs to be a marketing strategy). Bottom line is delivery of health care and the benefits you are providing overall to health care (beyond drugs to the overall health system)
Figure out who is the “customer” of the DTC
Evaluation

Monitor administration (processes), outcomes in medicine use, outcomes in resource utilization. **Processes:** membership, defined roles, frequency of mtgs, attendance percentage, SOPs, budget, reference materials. **Outcomes in medicine use:** number of training interventions, availability of STG/EDL, criteria for addition/deletion, revision of STG/EDL, number of drug use studies, number of interventions, policy regarding drug reps, availability of AB policy, control of AMR by surveying selected antibiotics. **Outcomes in resources:** reduction in drug budget, availability of key drugs, percentage of drugs bought from EDL, cost of DTC vs. money saved in outcomes.
No DTCs: How to Get Started

Problems

Lack of:

Marketing strategies of DTCs
Well-defined roles and functions
Leadership and training—no one to drive the implementation at national & institutional level
Resources (human, logistics)
Coordination and communication
Political will
Ethics: Corruption—people thrive on the drug business

Administration and government may not think rational use is a priority problem

Solutions

Marketing plan for the DTC—demonstrate evidence for showing how “what little we have” should be used rationally (Zambia)
Need to collect evidence (e.g. do ABC analysis)
Link with educational institutions (universities) to service your needs—preservice education and active participation of the academic sector in developing evidence
Mission statement, goals
Identification of stakeholders: MOH, hospital administration, cooperating partners
Sensitization workshop—part of marketing strategy (national level and pilot DTC members from different hospitals together)
Development of TOR for level of care and ownership
Criteria for selection of members (drive, commitment, accountability)
Well-defined coordination and well-developed communication systems (radio, email group lists, bulletins, snail mail, fax, phone)
Capacity building (secretariat—particularly at national level, task teams)
Develop monitoring indicators
Change the word “committee” to something else—professionals are tired of the word committee, change it to something that is more constructive/productive
Develop local solutions based on existing resources (create “workarounds” to use what resources you have instead of assuming your resources will increase). For example, in Eritrea, national DTC uses the Drug Information Unit as secretariat
Use consumer groups, patient groups to advocate for DTCs
Example of Kwazulu Natal PTC—got a professor of sociology on the PTC to represent consumer interests
Use recent grads—who are sharp and can focus in on the evidence without doing costly studies
Face-to-face training, education with pharmacists, providers—feeding them material at strategic times, email list dissemination, structured according to need

Evaluation

Site visits—using an evaluation checklist
Number of active DTCs
Ongoing support to DTCs that have been formed
Lack of Resources for DTC Functions

Problems

Human resources
- Shortage of trained personnel
- Lack of motivated and committed chair and members
- Secretariat with insufficient time to carry out duties
- Lack of time for operational level workers
- Lack of representation of management at meetings (important for distribution of resources)

Financial resources
- Salaries for additional staff
- Lack of incentives (allowances)

Infrastructure
- Drug stores do not meet requirements
  - Storage space
  - Security
  - Temperature control

Material resources
- Lack of equipment
  - Computers
  - Communication
  - Stationery
  - Literature
  - Transport

Solutions

Create awareness of DTC roles and functions- need to convince administrative authorities (marketing)
- Training members in DTC functions
- Incorporate DTC functions into job descriptions
- Rearrange local duties to suit DTC functions
- Management should have representation on DTCs
- Members should be appointed officially by management
- Incentives—training courses, allowances, research
- Approach donors with proposals (Kathy Holloway comment: but donors will not want process indicators—they want results. Great to have meetings and job descriptions but are they having results and are they sustainable?)
- Include DTC budget in annual expenditure plans
- Purchase computers, software, stationery
- Infrastructure renovation
- Government commitment to ensure sustainability
  - Policy, advocacy, lobbying
  - Resources mobilization
- Need to convince management to increase resources
Proper TOR—meetings will be held at this particular time, be punctual, finish in the time allotted, have a strict agenda and meeting outcomes
Look at empowering people to develop themselves to carry themselves as professional—we have resources—we have thousands of people! Don’t be afraid to use people without “qualifications”.

Evaluation

Trained personnel available
Allowances available for DTC meetings and supervision
Research in DUE is done/ ongoing (to provide evidence to donors on outcomes)
Awareness/sensitization workshops conducted
Literature available
Computers/software and stationery available
Communications systems improved (fax, email)
Transport available
Renovated infrastructure
Success of DTC RUD Programs: Impact of Decreasing Incomes in Institutions

Problems

As RUD improves, income decreases (identified from drug/financial indicator studies) (Kenya, Ghana)
Privatization with full cost recovery
DTC in teaching hospital promoting RUD but runs a dual-pharmacy system (one public system and the other one autonomous)
Autonomous raises huge sums of money for funding all pharmacy activities including RUD
Funds received, but RUD affected as all items are stocked and supplied
Dual pharmacy system (Peru)
Government supposed to fund exemptions
Aim to encourage people to use fewer drugs and use more rationally, but the profits from drugs are promoted and required by the government (contradiction)

Solutions

Funding mechanism for health care
- National health insurance scheme (mutual, cost-sharing, private)
- Adherence to STGs, EDLs under insurance system
- Managerial controls including what can be prescribed to whom and for how long, how much

Valuing cost centers
- Changing focus from profits on products to payment for professional services (may require legislation change, e.g., Australia)
- Efficient management of staff and resources (evaluate inputs and outputs)
- Mechanism for identifying patients who require exemptions (how? Very big problem for all)
- Revolving funds should incorporate all aspects of health care, not just drugs

Functional, integrated DTC system
- Must include local authority, private sector, government, community participation
- Oversight of all drug-related activities including improvement of RUD education, etc.
- Legislation to develop a unified health care system (long term)
- Adherence to laid-down procedures in the public system (medium term)

Charge for keeping bodies in mortuary (Ghana)
Increase quality of consultation—then patients may want to pay
Decrease waiting times—if they wait so long, patients feel they should be given drugs (more than paracetamol). Also the more expensive the drug, the better the patient feels (comment from Ghana).
Need to invest more in social science, qualitative research on these issues.
Use money from private wards to generate money for public wards (South Africa)
Evaluation

Systematic Costing procedures
  Pharmacoeconomic evaluation [cost–benefit analysis (CBA), cost–effectiveness analysis (CEA)]
  Costs associated with procedures, products, et cetera
  Data collection system
  System will permit measurement of outcomes (contribution of drugs to institutions’ incomes
Adherence to STGs
Drug indicator studies
Patient encounters with health care delivery system on annual basis (funding vs. uptake)
Influence of the Pharmaceutical Industry

Problems

Lack of national drug policies (NDPs)
Lack of drug regulatory policies
Pharmaceutical industry is organized, powerful, and exerts strong pressure on DTCs
Brochures, well–trained staff, pharmacists and doctors on their payroll, main sponsor of research, financier of academic institutions
Drug representatives sometimes the main or only sources of drug information for most doctors and pharmacists
Influences drug selection
Some doctors value the information and interaction with drug representatives
Not all information provided by representatives is evidence–based or credible
Omission of important information on safety
Unethical influences
Exquisite product launches and perks
Use of respectable consultants during drug launches
Donations and bonuses with perverse intentions
Supplier of equipment restricting use to their consumables (eg., glucose meters, ventilators)
Subtle advertising in wards such as notepads, calendars, pens, wall charts, et cetera
Involvement of politicians, as directors, et cetera

Solutions

Enforceable laws and regulations—pricing, ethics, clinical trials, drug donations, et cetera
Protocols and SOPs for DTC interaction with the pharm industry
Declaration of Interest should be signed by all professionals when they go to conferences, et cetera
Empowering evidence based practice based on timely provision of evidence–based medicine (EBM) info
Assertiveness of DTC from a strong knowledge base
For selection, DTC must carry out pharmacoeconomic evaluations for medicines and equipment
Communication of unacceptable practices to all
Control of all drug advertising in institutions
Professionals should adhere to code of ethics (transparency should be enforced)
DTC should approve staff participation in pharmaceutical–sponsored events
Anonymous funding for training, et cetera

Evaluation

Enactment of legislation
  Transparent pricing and bonus system
  Donations—whether they were obtained under laid–down rules, et cetera (e.g., Coartem in Zambia)
Use of checklist to measure interaction of pharmaceutical industry with practitioners
  Constantly evaluating drugs versus committee decisions to ensure additions/deletions are evidence–based committee decisions
Count of efforts or materials supplied by DTC for empowerment
Constant review of decisions, policies, and tools in place to determine their functionality and utility
Lack of Institutional Commitment and Support

Problems

Financial
Logistics (working tools, computers, et cetera)
Manpower
Lack of recognition, existence from other health cadres
Administration
Lack of transparency by the management (accounts)

Solutions

Share the evidence of DTC activities with the management
Sensitization and awareness about the roles and functions of DTCs to the management, opinion leaders, health cadres and workers
Strengthen the management commitment by their representation in the DTC
Advocacy for transparency
Ease accessibility of required information from registry, accounts sections, laboratory
Representation of management in DTC meetings
Understand underlying causes of the lack of political support
Need to build a critical mass of activities in order to show DTC importance to management
Must be a multi-pronged approach for true sustainability

Evaluation

Meetings conducted, management represented
Easy access to source of information (DUEs conducted, ongoing, and ABC/VEN analysis done)
Non-Compliance with STGs

Problems

Non-compliance with STGs
Consequences of non-compliance: increased costs, increased patient encounters, poor health outcomes
STGs may not have been developed properly, without sufficient involvement of experts
Workers not sensitized in use of STG
Lack of supervision
Lack of motivation to use STGs
Non-availability of drugs on STG
Patient overload

Solutions

Print and distribute STGs
Training to sensitize and motivate users
Improve supervision and peer review
Procurement of essential medicines
Realistic treatment protocols and STGs
Clinical meetings
Introduce concept of STG in medical schools
Peer review process—doctors influencing each other (Ghana)
Strong managerial control—drugs not dispensed unless STGs are followed
Sensitize providers and administration to cost differences between prescribing according to STG and not prescribing according to STG

Evaluation

Collect evidence of lack of compliance (outlined also under problems above)
STG not available
Workers not sensitized in use of STG
Lack of supervision
Lack of motivation to use them
Non-availability of drugs on STG
Patient overload
Look deeper into the underlying cause of non-compliance
ABC analysis
Drug utilization review
Case record review
Clinical meetings
Feedback from users of STGs
Update and review of STG
Non–Compliance with EDL

Problems

No implementation of NDP
Drug procurement not linked to EDL
Prescription of drugs from outside the EDL
Generic prescription not mandatory (in Zambia, it is mandatory in the public sector)
EDL not disseminated well—no discussion or training
EDL, STG and national health insurance reimbursement list not consistent (Moldova)
No regular revision
Development or revision of list not participatory (no sense of ownership)
No links between STGs and EDL
No scientific evidence about the quality of generics from QC lab to all DTCs regularly (Zambia, no quality control (QC) lab)

Solutions

DTC to collect and present evidence from facilities regarding problems associated with non–compliance to EDL
Ensure that the NDP is implemented through advocacy [Ministry of Health (MOH), Ministry of Finance (MOF)]
Link drug procurement to EDL—advocacy through MOH and MOF
DTC will collect and present evidence to the prescribers about the value of prescribing within the drug list regularly
Distribution of independent drug information and consumer information about generics
Passing regulation that compels generic prescribing
Generic and dosage labeling in dispensing to patients
Popularization of EDL to all facilities
Regular participatory revisions
Drugs in the EDL should be from the STGs
Harmonization of the lists (what is the procedure? What comes first? In Delhi, EDL first, then STGs. In South Africa, the STGs in place first, then EDL)
Government should adopt EDL, implement it, enforce it, and procure according to it

Evaluation

Savings in drug budget
Number of revisions in EDL
Number of drugs procured not in EDL
Percentage of compliance to STGs and EDL for tracer diseases
Number of feedback reports obtained for the revision procedure (need standard reports and feedback channel, procedures)
Percentage of generic prescriptions
Number of drug bulletins issued
### Summary of Participants

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<td>Number who had attended previous DTC workshop</td>
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### Location of Previous Workshop

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### Summary of Answers from ALL PARTICIPANTS

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<td>Facilitators</td>
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<td>Q4. The group exercises were appropriate and relevant to the objectives of the workshop</td>
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<td>Q5. The information discussed during the Workshop will be helpful in my future work</td>
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</tbody>
</table>
Q2. The defined objectives were achieved by the end of the workshop | 0%  | 7%  | 27%  
Q3. The amount of material covered in the three days was appropriate | 0%  | 0%  | 20%  
Q4. The group exercises were appropriate and relevant to the objectives of the workshop | 0%  | 0%  | 13%  
Q5. The information discussed during the Workshop will be helpful in my future work | 0%  | 0%  | 13%  

<table>
<thead>
<tr>
<th>Facilitators</th>
<th>Attended previous workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
<td>Very Poor</td>
</tr>
<tr>
<td>answer range</td>
<td>1-3</td>
</tr>
</tbody>
</table>
Q7. Overall, I would say the quality of the facilitation was: | 0%  | 0%  | 27%  

<table>
<thead>
<tr>
<th>Workshop Facilities/ Format/Materials</th>
<th>Attended previous workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
<td>Very Dissatisfied</td>
</tr>
<tr>
<td>answer range</td>
<td>1-3</td>
</tr>
</tbody>
</table>
Q8. The workshop facilities | 0%  | 7%  | 20%  
Q9. The pace of the workshop | 0%  | 0%  | 47%  
Q10. The format of the sessions and group exercises | 0%  | 0%  | 20%  
Q11. The reference materials | 0%  | 7%  | 33%  
Q12. The Length of Workshop | 0%  | 7%  | 33%  

<table>
<thead>
<tr>
<th>respondent number</th>
<th>Q6. Comments on Content of Workshop - Please expand on any of the ratings you have chosen in Q1-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Public Health must be emphasized - importance of the customer for whom we provide services - improved honour care/ status break away compartmentalization of DTC - Use Holistic principles in discussions - Broaden the baseline</td>
</tr>
<tr>
<td>3</td>
<td>Sustainability issues came out in parts of the proceedings but the theme did not occur consistently throughout the workshop.</td>
</tr>
<tr>
<td>Number</td>
<td>Comment</td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>4</td>
<td>A very good learning experience and refreshed my mind also as to what role I can play in future - move out of my comfort zone and be proactive. It supplied the tools to improve and move on.</td>
</tr>
<tr>
<td>9</td>
<td>The objectives were clearly spelt out and the facilitators were focused on their contributions. Participants are going to take home very useful information</td>
</tr>
<tr>
<td>10</td>
<td>The various group activities were extremely relevant and useful as they permitted the sharing of information and practical experiences in a very useful and coordinated manner</td>
</tr>
<tr>
<td>11</td>
<td>#3 and 4. Some of the group work seemed to be wrongly tackled at the end of presentation session. E.g., the issue of regarding generic drugs were of low quality… This should have been “redone” if time could allow.</td>
</tr>
<tr>
<td>14</td>
<td>The group exercise were relevant but time could have been for short lectures and guidance before doing the group exercises</td>
</tr>
<tr>
<td>15</td>
<td>We didn't discuss about 1. sustainability of DTC's. 2. Linkage of DTCs of the regions with the central level. 3. Communication of DTCs in different levels of Health facilities. 4. Communication of DTCs within the regions and strengthening DTCs</td>
</tr>
<tr>
<td>16</td>
<td>Objective before arriving included sharing on 1. Lessons Learned, 2. Successes achieved. These did not come out clear during the 3 days… spent a lot of time on &quot;challenges&quot; and how to solve them, with is good, but it would have been a great motivator to hear how people have succeeded and learned lessons from them. Although meant to be covered in individual presentation, there was not enough time to capture these aspects</td>
</tr>
<tr>
<td>18</td>
<td>1. The follow-up workshop generated a sharing of successes and failures with solid ideas of how to overcome and support DTC formation and activities 2. Networking in the future - very enabling</td>
</tr>
<tr>
<td>19</td>
<td>The group exercises were appropriate and relevant to the objectives of the workshop; since as we worked in groups, we were able to find solutions to our problems/ get solutions from experiences of others in similar situations.</td>
</tr>
<tr>
<td>21</td>
<td>1. Group work was great, but may we request that if only 10 mins are to be given for presentation, this must be clarified at the outset to avoid last minute modifications 2. request that group work summaries be handed out at the end of w/s. 3. More references on the impact of DTCs are welcome (journals often not accessible for full txt)</td>
</tr>
<tr>
<td>22</td>
<td>I really valued the interaction with delegates from other countries. The workshop workload was appropriately distributed over the three days and we all stayed focused</td>
</tr>
<tr>
<td>23</td>
<td>It made me aware that STGs have to be reviewed. However, they were updated last year by each department, I am suspicious some were not properly done. Even more, neither the Doctors who wrote them, follow them thoroughly</td>
</tr>
</tbody>
</table>

### Comments Specifically on Content and Utility of M&E Session

<table>
<thead>
<tr>
<th>Number</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>While appreciating time constraints in the main International DTC Course, I think the M&amp;E session should be added to it</td>
</tr>
<tr>
<td>3</td>
<td>Useful, realistic advice given. Participating method of teaching throws a lot of light on the jargon used in any M&amp;E presentation</td>
</tr>
</tbody>
</table>
The session on M&E was very important because in most of our activities we initiate and carry out several activities but we lack the most important aspect of monitoring and evaluation and this session gave us a brief outline of developing M&E.

M&E session was excellent. Has so much relevance and utility for the work I do.

Well organised and better to include more examples while presenting.

The time for this important session was short and the content could be improved especially on development of different types of indicators.

A good addition, but it would have been more useful if indicators as such were discussed and explained.

1. Tools generated - excellent for evaluation. 2. Very good. Framework provided enables future improvements. 3. The electronic inclusion of the framework tool can be used as a development tool for future DTCs. 4. Progressive inclusion of M&E.

M&E session gave us answers on how we should move forward and why - A measure of our success as DTCs.

Very important session. Framework will help me in monitoring and evaluation of the programme I am running.

I found this session extremely useful. It was well designed and conducted. I feel it must go into the DTC course (at least an introduction).

Valuable. The indicators developed to monitor the outcomes and performance of DTCs will be very helpful. Provided lots of food for thought.

**Q7. Comments on Facilitators**

Utilization of electronic equipment (PowerPoint) was fantastic.

During ones presentation if it is a group work presentation, one should not be interrupted as the case with xxxxx interrupting xxxxx- as it can make one “panic” if you know what I mean…

The facilitators encouraged deliberations and kept us on track.

**Q13. Please give us your recommendations for improving this workshop, including logistical arrangements**

1. Increase Group work, but time group work rigidly.
2. Prereading material to be issued before course.
3. Participants must prepare short talk for course at home - time frame 15 minutes.
4. Increase per diem allowance.

On logistics - for a 3 day follow-up course, I feel there would be value in considering "Regional" basis. The travel time should not exceed the course time.

The first day was very exhausting - should have preferred to go directly to hotel from airport.
<table>
<thead>
<tr>
<th></th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Too short to complete and get group support for country section plans. Could have used peer review</td>
</tr>
<tr>
<td>8</td>
<td>Increase amount of per diem allowance</td>
</tr>
<tr>
<td>10</td>
<td>Lack of communication facilities, including email was a big negative. Caused a lot of anxiety and stress. Otherwise, facilities were OK</td>
</tr>
<tr>
<td>11</td>
<td>1. Extra day would be appropriate as I had earlier suggested… 2. If and only if, a place close to the city centre could have been ideal, though this was as well OK</td>
</tr>
<tr>
<td>12</td>
<td>Time too short. An extra day to allow buying sandals from Zambia (free afternoon) would be better. Far from town,</td>
</tr>
<tr>
<td>13</td>
<td>Accomplished well, please send us all our discussions and presentation by CD through our postal address, or send it through our email if it is less than 2MB because it may be difficult to get from your website</td>
</tr>
<tr>
<td>15</td>
<td>Guideline of DTCs</td>
</tr>
<tr>
<td>16</td>
<td>1. Reference material: provided, but not used much during sessions. 2. Since we are all very busy people, it would have been nice to have an extra half to 1 full day for planned group leisure activities</td>
</tr>
<tr>
<td>17</td>
<td>The venue of the workshop is not really appropriate. The place should be readily approachable. It should not happen that people have to leave the workshop half way through, because otherwise the next flight will be after 3 days, which causes inconvenience to participants</td>
</tr>
<tr>
<td>18</td>
<td>1. The venue being removed from a &quot;city centre&quot; - close to nature -++++ very good. 2. Supportive materials - were all fine - writing boards, pens, etc. 3. Comfort could be improved 4. Time keeping for long distance travelers - some improvement necessary</td>
</tr>
<tr>
<td>20</td>
<td>Generally workshop achieved its objective though there was generally dissatisfaction on amount of per diem</td>
</tr>
<tr>
<td>21</td>
<td>1. The concept of this workshop was excellent. 2. The idea of following up previous w/s was excellent, however, the venue chosen left much to be desired in terms of communication and travel arrangements. The physical environ were gorgeous, but we were cut off from any simple mode of communication. 3. Also, prior to w/s, communication from organizers were too few and far between</td>
</tr>
<tr>
<td>22</td>
<td>Everything was great</td>
</tr>
</tbody>
</table>

### Previous DTC Course

<table>
<thead>
<tr>
<th>Question</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Participants. n=</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Q14. Number who had attended previous DTC workshop</td>
<td>15</td>
<td>65%</td>
</tr>
</tbody>
</table>

*The following questions were only asked of those who attended previous DTC workshop - Comments follow*

<table>
<thead>
<tr>
<th>Question</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>n= 15 for all remaining questions</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Q15. Number who were involved with DTC's prior to attending course</td>
<td>14</td>
<td>93%</td>
</tr>
</tbody>
</table>
Q16. Number who were involved in setting up a new DTC after attending course 8 53%

Q18. Number who were involved in training groups or individuals in DTC functions after attending course 14 93%

Q19. Are international training courses an effective way to promote awareness and knowledge of DTCs 15 100%

Q20. Do you feel there is a need for more follow-up workshops 15 100%

Summary of Comments for Follow-up Evaluation of DTC Training Courses

<table>
<thead>
<tr>
<th>respondent</th>
<th>Q15. Were you involved with DTCs prior to attending the DTC course? If yes, state how you were involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chairman of Local Authority DTC. Facilitated establishment of DTC in substructure</td>
</tr>
<tr>
<td>2</td>
<td>Drug selection EDL for Church health facilities in Kenya</td>
</tr>
<tr>
<td>4</td>
<td>I was a member of the hospital PTC</td>
</tr>
<tr>
<td>5</td>
<td>At a national level</td>
</tr>
<tr>
<td>6</td>
<td>Through the formulary committee</td>
</tr>
<tr>
<td>11</td>
<td>In one way or another, as in the issue of Revolving Drug Fund implementation, the issues of Rational Drug Use are addressed and therefore indirectly involved.</td>
</tr>
<tr>
<td>12</td>
<td>Meeting DTC members in hospitals we assist</td>
</tr>
<tr>
<td>16</td>
<td>1. Secretariat to DTC at National teaching and Referral Hospital, 1995-1999. 2. Secretary to Gertrude's Hospital DTC 2002 - to date</td>
</tr>
<tr>
<td>17</td>
<td>Secretary of Formulary Committee, Member of purchase and procurement committee</td>
</tr>
<tr>
<td>18</td>
<td>From RDU data of in and out pt in a hospital - formed a DTC which progressed to a joint DTC for 3 hospitals and then to a district one. I was invited thereafter to drive the provincial DTC</td>
</tr>
<tr>
<td>21</td>
<td>Secretary</td>
</tr>
<tr>
<td>22</td>
<td>Secretary of DTC - approx 5 years</td>
</tr>
<tr>
<td>23</td>
<td>I am in charge of the DTC in my hospital</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>respondent</th>
<th>Q16. Were you involved in setting up a new DTC after attending the DTC course? Please state number and location of the DTCs and how you were involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3 DTC centres in sub entities in Local Authority</td>
</tr>
<tr>
<td>2</td>
<td>1 DTC centre in Kenya National Pharmacy of Therapeutics</td>
</tr>
<tr>
<td>4</td>
<td>After the course I got a job at National Dept of Health - selection &amp; RDU subdirectorale</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>5</td>
<td>Setting up hospital DTC in selected hospitals underway</td>
</tr>
<tr>
<td>7</td>
<td>Training of district establishment and operationalisation of DTC. Setup 67 DTC centres in districts</td>
</tr>
<tr>
<td>10</td>
<td>No, but involved in policy discussions and training for proposed DTC members in Ghana. Involved in setting up DTCs for SEAM Ghana</td>
</tr>
<tr>
<td>11</td>
<td>I, being the pharmaceutical support unit coordinator of church health institutions, facilitate the pharmaceutical services in these institutions. Strengthened/started new DTC in Selian, Machorme, Hete, Kabanga, Muumi, St Elisabeth Hospitals</td>
</tr>
<tr>
<td>12</td>
<td>I specifically trained hospital staff on DTCs and their activities. About 10 new DTC’s set up and acknowledged it was the result of training</td>
</tr>
<tr>
<td>17</td>
<td>Setup a DTC in a teaching hospital as secretary of the committee</td>
</tr>
<tr>
<td>18</td>
<td>I strengthened my coordination activities and added more to the DTC</td>
</tr>
<tr>
<td>21</td>
<td>Set up DTC centre at current Hospital Acted as secretary</td>
</tr>
<tr>
<td>22</td>
<td>Our DTC had not functioned since Dec 2002 - Key members left our institution. We are in the process of setting up a new DTC</td>
</tr>
</tbody>
</table>

**Q17. How did training course assist you in strengthening existing DTC**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Imparted knowledge - increased availability of reference material 2. Carried out DUR and talk to nurse clinicians 3. Participated in PHC/EDH impact on health 4. Chaired national DSM - used knowledge from course to develop policies for access to medicines</td>
</tr>
<tr>
<td>2</td>
<td>The sessions on overview (roles and functions) of DTCs, formed the basis of the concept paper for the relaunching of the K-NPTC, which we presented to the Ministry of Health.</td>
</tr>
<tr>
<td>4</td>
<td>Understand principles of selection process so much better. Opened eyes to EBM principles and categorizing levels of evidence. Understand why, how of indicators so much better. Principles of RDU - how to do and apply</td>
</tr>
<tr>
<td>5</td>
<td>Hospital DTCs were not existent; establishment underway. The &quot;Overview of DTCs&quot; part of the course is specifically important in setting up Hospital DTCs.</td>
</tr>
<tr>
<td>6</td>
<td>Advocacy for DTC activities</td>
</tr>
<tr>
<td>7</td>
<td>1. Roles and functions of DTCs, 2. Monitoring and Evaluation of DTC’s</td>
</tr>
<tr>
<td>10</td>
<td>Provided skills and needed introduction to DTCs. Have continued to utilize int’l DTC training material to develop training mats/programmes for Ghana</td>
</tr>
<tr>
<td>11</td>
<td>More or less OTH the sessions, as I managed to develop DTC guidelines for church health institutions, some of the hospitals are doing DUEs already, e.g. Selian Hosp.</td>
</tr>
</tbody>
</table>
12
1. Membership end functions of office bearers. 2. The tasks for DTCs e.g. formulary, measurement, Rational Drug Use.

16
1. Writing of terms of reference (committee was operating without these) 2. Setting up guidelines on assessing drug quality, safety, efficacy and cost - all sessions 3. Development of standard treatment guidelines - this session was covered

17
My views have DTC grew stronger

18
1. DUES/Evaluations - data collection to promote other DTCs in province (incl VEN and ABC analysis) 2. Strategies to form more active DTCs 3. Marketing influences - evaluations and actions to provide EBM data 4. EBM evaluation for drug selection 5. Idea sharing/Networking for success

21
I learned some aspects like DUE, quantitative measure of drug use

22
In many ways: The functions and activities of the DTCs were discussed and we realized that we were not involved in many of these activities

23
Workshops about DTC problems and solutions were especially helpful. Two main issues for me: compliance with STGs, and reliability on generics

<table>
<thead>
<tr>
<th>respondent</th>
<th>Q18. Were you involved in training in DTC function after attending course</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Training of nurse clinicians, 2. facilitated attendance for approx 10 participants in South African Courses run by MSH</td>
</tr>
<tr>
<td>4</td>
<td>Assisted and presented at workshops/seminars in Gauteng province</td>
</tr>
<tr>
<td>5</td>
<td>Conducted informal training, or rather group discussion, with representatives of Hosp DTCs, which were not functional</td>
</tr>
<tr>
<td>6</td>
<td>District RUD workshop</td>
</tr>
<tr>
<td>7</td>
<td>Groups - workshops</td>
</tr>
<tr>
<td>10</td>
<td>1. Training doctors, and nurses 2, regular training on ADRs</td>
</tr>
<tr>
<td>11</td>
<td>Only during supervision, On the job Training. In some supervised hospitals that are implementing the Revolving Drug Fund.</td>
</tr>
<tr>
<td>12</td>
<td>I have since included DTC sessions in out training and always mentioned it in sessions to improve Rational Drug Use</td>
</tr>
<tr>
<td>16</td>
<td>1. As part of Drug Management Training for MOH Sudan 2. Seminar to HCPs at AgaKhan Hospital, Nairobi, Kenya 3. two pharmacists interns, two pharmacy assistant students on attachment from MEDs 4. In-house CMEs</td>
</tr>
<tr>
<td>17</td>
<td>As co-coordinator of international DTC course held in Mumbai 2002</td>
</tr>
</tbody>
</table>
18. Individual institutions needing assistance  2. Conducted a DTC workshop for 39 participants from all 11 districts

21. Organised and acted as facilitator at Mumbai course.

22. This has been forecast as soon as our DTC has been launched ("revived"?) I facilitated sessions at the Equity workshop for our province

23. 1. RUD 2. Good prescription practices 3. ADR

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Q19. Are international training courses an effective way to promote awareness / knowledge of DTCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>You learn from successes and failures of participants. Assist in developing solutions to problems and create a network to improve communication</td>
</tr>
<tr>
<td>2</td>
<td>Because one can build on others’ experience to identify problems so that any baseline study is focused</td>
</tr>
<tr>
<td>4</td>
<td>It broadens your vision, makes you appreciate what you have and learn from experiences elsewhere in the world—networking, communication and collaboration</td>
</tr>
<tr>
<td>5</td>
<td>Yes if the work plan proposed after the training is approved by the superiors, but difficult when they are not supported by them</td>
</tr>
<tr>
<td>6</td>
<td>Sharing of experiences among the diverse talents and specialties</td>
</tr>
<tr>
<td>7</td>
<td>Because you also learn from other countries how theirs are operating</td>
</tr>
<tr>
<td>10</td>
<td>1. Provision of knowledge 2. Exposure to new trends/ideas 3. Networking and sharing common ideas</td>
</tr>
<tr>
<td>11</td>
<td>These are very informative courses. One could attend and really get trained, taking into account the busy scenario of our settings, reading can not lead one into being an expert the way training would make one</td>
</tr>
<tr>
<td>12</td>
<td>The closeness and sharing by participants is very useful</td>
</tr>
<tr>
<td>16</td>
<td>Especially where none exists or where they are not functional Why? Well, I am thinking of organizing a course for policy makers (MOH). I do not think they will &quot;respect&quot; me as a trainer</td>
</tr>
<tr>
<td>17</td>
<td>It gives strength to the course having several international participants</td>
</tr>
<tr>
<td>18</td>
<td>Very effective. Enables mapping progress, dissuades despair and enables national changes (hopefully) in terms of legislation and regulatory aspects</td>
</tr>
<tr>
<td>21</td>
<td>They increase awareness about DTCs—more administrators must participate</td>
</tr>
<tr>
<td>22</td>
<td>Definitely–It creates awareness of what happens in other countries. How health care is affected by DTC activities. Also, important to flag problems and successes in other countries</td>
</tr>
<tr>
<td>respondent</td>
<td>Q20. Do you feel there is a need for more follow-up workshops</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Only if course facilitators evaluate all participants successes according to their work plans</td>
</tr>
<tr>
<td>2</td>
<td>One appreciates the need for “small bite-sized” activities</td>
</tr>
<tr>
<td>4</td>
<td>To enable me to stay focused, motivated, and to move forward</td>
</tr>
<tr>
<td>5</td>
<td>But the follow-up workshop need to be preceded by series of follow-up communication (emails)</td>
</tr>
<tr>
<td>6</td>
<td>For the TA and peer review. Website may also be helpful for those with access to website</td>
</tr>
<tr>
<td>7</td>
<td>1. More follow-ups both local and international 2. To learn how to improve the weaknesses in your area</td>
</tr>
<tr>
<td>10</td>
<td>Provides opportunity to take stock of activities undertaken. Also provides a direction for the way forward</td>
</tr>
<tr>
<td>11</td>
<td>For M&amp;E. One needs to know if he/she is operating according to the set objectives or needs to improve the inputs/processes, etc.</td>
</tr>
<tr>
<td>12</td>
<td>We have now come to know each other and share information which is very useful (exchange)</td>
</tr>
<tr>
<td>16</td>
<td>Possibly every 2 years. Why? Work will definitely go on… gives us the motivation to put plans into action</td>
</tr>
<tr>
<td>17</td>
<td>It is good to have follow-up workshops. May act as stimulus and help solve some problems</td>
</tr>
<tr>
<td>18</td>
<td>Lack of HR &amp; funds to promote individually could possibly be overcome with international /national workshops</td>
</tr>
<tr>
<td>21</td>
<td>This w/s certainly showed me how in different part of the world common problems are tackled.</td>
</tr>
<tr>
<td>22</td>
<td>I think we can learn from our shared experiences. Also, it keeps participants motivated and creates a network of expertise</td>
</tr>
<tr>
<td>23</td>
<td>It is necessary for monitoring outcomes and results</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>respondent</th>
<th>Q21. Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>We need to build on sustainability—looking at other elements in Health Care Delivery . e.g. Role of Health Promotion in DTC,. Role of communities in DTC activities</td>
</tr>
<tr>
<td></td>
<td>This was my first international workshop experience—wonderful!! It opened a new world to me.</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>In addition to No 17, I strongly recommend the preparation of session and booklet on: &quot;Steps on setting up hospital DTCs&quot;, that can be used as a guide and model</td>
</tr>
<tr>
<td>10</td>
<td>Excellent workshop. Must be continued. Participants at DTC workshop should be told to set targets which will then be reviewed at follow-up workshop</td>
</tr>
<tr>
<td>11</td>
<td>You guys are great and may the God grant you great health and proceed well with what you are doing... Your follow-up, gives us more morale and the &quot;push&quot;...</td>
</tr>
<tr>
<td>12</td>
<td>The follow-up by Terry and his encouragement has been instrumental in the success so far for our DTCs</td>
</tr>
<tr>
<td>18</td>
<td>My growth in promoting an active DTC can be attributed to my participation in both workshops</td>
</tr>
<tr>
<td>22</td>
<td>I think that the workplans form an important part of the training and should be included in all workshops (even the short courses)</td>
</tr>
<tr>
<td>23</td>
<td>Thank you very much for the workshop. It'd be very useful for my hospital. The team of facilitators was great</td>
</tr>
</tbody>
</table>
## ANNEX 7
### WORKPLANS

**Name:** Atieno Ojoo  
**Country:** Kenya

**Goals**
To disseminate documents generated by DTC at Gertrude’s Garden Children’s Hospital (GGCH) Nationwide
To evaluate the outcome and impact of DTC activities at GGCH since April 2000

<table>
<thead>
<tr>
<th>Activity</th>
<th>Milestones/process indicators</th>
<th>Timeline</th>
<th>Outcome indicators</th>
<th>Outcome indicators - Data resources</th>
</tr>
</thead>
</table>
| Discuss two documents with relevant government authorities  
A Layman’s guide to generics-CP MOH  
Antiretroviral guidelines in paediatrics-NASCOP | Meeting with CP MOH  
Meeting with potential partners-RLI/HAI/WHO  
Meeting with Dr Wangai-NASCOP | Sept 03  
Sept/Oct 03  
August 03 | Commitment to adapt these documents for national use  
Hand over materials to relevant authorities | Materials adapted, printed and circulated as agreed |
| Publish 3 successful interventions carried out by GGCH DTC  
Management of Med reps  
Generics use  
STG development process | Meeting with UON Faculty of pharmacy-to evaluate the papers  
Draft papers for review | Nov 03  
Jan 03 | At least one paper accepted for publication in a reputable journal | Evidence of acceptance for publication |
| External evaluation of DTC activities done by GGCH in the last three years (2000-2002) | Identified external “evaluator”  
Developed evaluation tools | Nov 03  
Feb 03 | Evaluation report complete and discussed at DTC meeting of April 04 | Valuation tools, and report TC minutes of April 04 |
## DTC WORKSHOP – WORK PLAN PROPOSAL

**Name:** Chipupu Kandeke  
**Country:** Zambia (Churches Health Association of Zambia)

**Goal:** Improved quality of pharmaceutical services in Church Health Institutions

<table>
<thead>
<tr>
<th>Activity</th>
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<th>Outcome Indicators</th>
<th>Outcome Indicators Data Source(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Incorporate DTC module into Drug Management and Rational Use in-service training</td>
<td>Summarized DTC modules</td>
<td>July 2003</td>
<td>DTC module incorporated into Drug Management training and Number church health institutions trained and form DTCs</td>
<td>Stock control cards</td>
</tr>
<tr>
<td>2. Conduct post intervention study in patient antimicrobial use indicator study (Eastern Province)</td>
<td></td>
<td>October 2003</td>
<td>MSH indicators for investigating in patient antimicrobial drug use</td>
<td>Patient drug charts, Financial records, Stock control cards</td>
</tr>
<tr>
<td>3. Disseminate post intervention results for post in</td>
<td></td>
<td>December 2003</td>
<td>Post intervention results disseminated to stakeholders</td>
<td></td>
</tr>
</tbody>
</table>
Name: Embaye Andom  
Country: Eritrea  
Goals: Establish DTCs in Eritrean Hospitals  

<table>
<thead>
<tr>
<th>Activity</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Prepare DTC Formation guideline</td>
<td>DTC Guidelines</td>
<td>Nov. 2003</td>
<td>Availability of DTC Guidelines</td>
<td>-The guidelines</td>
</tr>
<tr>
<td>Sensitization Seminar on DTCs TO Health Managers and Hospital Mgt team</td>
<td>--Seminars Conducted</td>
<td>Nov. 2003</td>
<td># of Seminars conducted</td>
<td>--Records and reports</td>
</tr>
<tr>
<td></td>
<td>--Meeting with Managers</td>
<td></td>
<td># of people attended Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>--Meeting with hosp Mgt. team</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish DTCs in 5 referral hospitals</td>
<td>--DTC established</td>
<td>Jan. 2004</td>
<td># Hosp. with DTC in the capital</td>
<td>*Records &amp; supervision</td>
</tr>
<tr>
<td></td>
<td>--DTC Members meeting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish DTCs in Zonal hospitals</td>
<td>--Policies &amp; procedures</td>
<td>May 2004</td>
<td># of Hosp with DTC in country</td>
<td></td>
</tr>
<tr>
<td>Drug Selection (Hosp EDL)</td>
<td>--EDL</td>
<td>Nov. 2004</td>
<td># of Hosp with EDC</td>
<td>*Supervision</td>
</tr>
<tr>
<td></td>
<td>--DTC meeting</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Name: Rosalind Kirika  
Country: Kenya (ECSA)

Goals: To Support the Establishment of National DTC IN Kenya/Ethiopia and also activities of ECSA Region Drug Forum

<table>
<thead>
<tr>
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</thead>
</table>
| Establishment of DTC in Kenya                 | Follow-up on Launch of National DTC Resolutions: setting up of secretariat formal appointment of NPTC 2. Day planning workshop | July 15\textsuperscript{th} 2003  
August 15\textsuperscript{th} 2003  
By Sept. 30, 2008 | *A formally appointed NPTC with a functional Secretariat.  
*Workplan for NPTC | *Letters & records of meeting of the NPTC  
*Workplan for 2 years |
| Support establishment of DTC in Ethiopia      | Follow-up with Lusaka Ethiopian Course participants. Attend planning meeting for NPTC          | 30\textsuperscript{th} of each month-Dec.  
by December 2003 | *A formally appointed NPTC by December 2003 | *Letters of appointment of members |
| Support of CRHCS in establishment of RDF      | *Planning meeting for launch of the RDF  
*Launch of RDF  
*TORs for RDF | 2\textsuperscript{nd} week July 2003  
1\textsuperscript{st} week Aug.  
1\textsuperscript{st} week Aug. | * A framework for the RDFs operations. | Reports on planning for and launch of RDF |
Name: Romulo Lu  
Country: Peru  
Goals: Improve Effectiveness of DTC

<table>
<thead>
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<th>Activity</th>
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</table>
| Distribute STGs to all clinicians in the hospital | -printing adequate number of STGs (350 copies) | 1 month | -#copies distributed  
-# of clinicians having STGs  
-#of prescriptions according STGs & EDL | -checklist of doctors |
| Sensitize clinicians in the use of STGs | -workshops  
-face to face meetings  
-clinical cases discussions | 3 months | -%of clinicians attending meetings | -registered doctors attending meetings |
| Organize the clinical pharmacology unit to decrease overuse of antibiotics | -Give approval to use certain drugs  
*3rd generation antibiotics  
*Expensive  
*ADR | 3 months | -unit implemented  
-decrease overuse of antibiotics  
-#of cases reviewed per day  
-improve RUD | -ABC analysis  
-reports from pharmacy |
Name: Urmila Thatte  
Country: India

Goals: 1) Revision of outdoor STGs; 2) Finalization of comprehensive EDL; 3) Developing a policy for use of antimicrobials for surgical prophylaxis

<table>
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</table>
| Revision of outdoor STGs                      | 1. Asking for and receiving revisions  
2. DTC meeting with authors/reviewers to review & accept changes  
3. Printing drafts  
4. Reviewing drafts  
5. Printing final STG | 2 months  
2 months  
15 days  
1 month  
15 days | Number revisions received  
Number of members attending DTC meeting | Activity Report  
Minutes of meeting |
| Finalization of Comprehensive EDC             | 1. Making list of drugs from revised STGs & indoor STGs  
2. Review of list  
3. Printing of list | 7 days  
7 days  
15 days | Printing of EDL | EDL |
| Policy for AM use for 3x Prophylaxis          | 1. Assessing current practices  
2. Assessing rate of infection & resistance patterns  
3. Developing guidelines in consultation with surgeons  
4. Implementation in 3 units. 3 units act as controls  
5. Post intervention study | 2 Months  
1 month  
3 months  
2 months | % post-op infections  
% resistance of selected organisms to selected drugs | Patient records  
microbial records |
**Name:** Dr. Usha Gupta  
**Country:** Delhi (India)

**Goals:** 1) Revision of EDL; 2) Survey of cxi microbidia use in Indoor patients; 3) Evaluating adherence to slides

<table>
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</table>
| Revision of EDL                       | *Obtain recommendations from hospitals for addition & deletions  
*Preparing dossiers  
*Meeting of the committee  
*Printing & distribution of EDL | 1 month  
1 month  
2 days  
2 months total  
4 months | Evidence based recommendations  
Completed EDL | Records of minutes of the meeting, letters and recommendations from hospital |
| Survey of Antimicrobial use in indoor patients | *Preparation of protocol & briefing  
*Obtaining permission from hospital administrators  
*Conducting Survey Result analysis | 2 months  
1 month  
4 months  
2 months | Hospital indicator  
Prescribing indicator  
Patient care indicator  
Supplemented indicators | *Protocol  
*All completed proforma  
*Results analysis report |
| Evaluating adherence to standards of guidelines | *Preparation protocol performance  
*Data collection, one month after release of STG for 5 trace dispensary and dermatology | 1 month  
1 month | *Percent prescription according to STGs  
*Percent prescriptions acceptable | *All performed  
*Data analysis sheets |
### Activity

<table>
<thead>
<tr>
<th>Activity</th>
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</table>
| Feedback to mtg. on workshop and survey and get necessary support to promote DTCs in hospitals                                                                                                           | -Reports  
-Meeting and commitment                                                                                                                  | 1 month         | Increased prescribing, dispensing time.                                             | Retrospective surveys             |
| Provide reading room in MEDS and equipment with reference material for DTCs Give information on meds update                                                                                               | -Room completed  
-No. and type of reference materials  
-Information given to DTCs on update                                                                                                           | -3 months  
-continuous  
6 months                                           | DTCs in hospitals (#with)  
Reduced drug cost per encounter                                                                                                               | Pharmacy records |
| Access suitable DTC materials from website, etc and disseminate via MEDS update (also from other sources)                                                                                                  | -number of articles sent to DTCs  
-number of other materials given to DTCs                                                                                                       |                 | Improved patient knowledge of drugs  
Continuous medical education for hospital staff                                                                                               | Interviews with patients  
Number trained                           |
| Sensitization sessions for key (potential) DTC members in MCAs seminars                                                                                                                                 | -number at seminars with DTC sessions  
-number of people trained in the sessions                                                                                                       | 1 year          |                                                                                     |                                   |
| Include hospital DTC in seminars by the national DTC                                                                                                                                                      | -number of DTC members (from mission trained)                                                                                                 |                 |                                                                                     |                                   |
| Conduct DTC – released activities in 4 hospitals with their DTCs involved. DTCs to do mid-term evaluation DTCs and meds to do evaluation after one year | -number of DTC released activities conducted  
-follow-up (mid-term)  
follow up (1 year)                                                                                                                              | 1 year          |                                                                                     |                                   |
| Training Sessions for key DTC members                                                                                                                                                                      | Develop new MEDS seminar  
Implement Seminars                                                                                                                                | 1 year          | # of DTC members trained                                                            | Training Records                  |
| Improve DTC related activities in 4 major hospitals                                                                                                                                                       | Meet with directors of DTCs  
Develop plan of action for DTC improvement  
Assess results                                                                                                                                  | 1 year          | #number of DTC activities implemented  
Follow-up reports of activities                                                                                                                 |                                   |
Name: A.R. Khan
Country: South Africa

Goals: Reduce Anti-microbial Resistance

<table>
<thead>
<tr>
<th>Activity</th>
<th>Milestones/Process Indicators</th>
<th>Timeline</th>
<th>Outcome Indicators</th>
<th>Outcome Indicators Data Source(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investigation of anti-microbial prescribing patterns among nurse clinicians in D.H.C. setting</td>
<td>*Primary medical care training on AM treatment. (all staff) *providing STGs *identifying drug use problems *discussion of resistance *presentation of AM costs/individual and group as portion of drug budget *identifying drug use problems *present drug utilisation review to nurse clinicians to create awareness of problem</td>
<td>6 months (Dec 2003)</td>
<td>*Compliance to STG (%age) *%cost of AM as proportion of drug budget *usage ratio of all antimicrobials *number of trained clinicians *% clinicians in possession of STGs</td>
<td>*Patient records at clinics *Costs from procumbent/stock program in pharmacy *Drug expenditure sheets for each clinic *drug utilization review</td>
</tr>
</tbody>
</table>
Name: Alex Dodoo  
Country: Ghana

Goals: To establish DTCs in 10 regional hospitals in Ghana towards improvement in the rational use of medicines

<table>
<thead>
<tr>
<th>Activity</th>
<th>Milestones/Process Indicators</th>
<th>Timeline</th>
<th>Outcome Indicators</th>
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</tr>
</thead>
</table>
| Set up DTCs in all ten (10) regional hospitals in Ghana | 1) Obtain political support and funding from MOH  
2) Develop DTC training manual  
3) Identify key personnel in each Regional hospital  
4) Organize detailed DTC training for key personnel  
5) Key personnel to obtain support from their hospital authorities  
6) Appointment of DTC members in Regional hospitals  
7) Obtain support from staff – health professionals, administrative, etc  
8) Develop policies, and Standard Operation Procedures for DTC  
9) Determine how DTC will function  
10) Hold DTC meeting(s) | Sept. 2002  
April 2003  
April 2003  
May 2003  
Aug 2003  
Dec 2003  
Dec 2003  
Feb 2004  
Feb 2004  
April 2004 | MOH approval for DTCs  
MOH funding for DTC  
DTC training manual  
Names/positions of key personnel  
Training programme held  
Approval from heads of regional hospitals  
Names/status of appointed members  
Awareness by staff of DTCs and its function  
Written policies and S.O.P.s  
Written plan of how DTC function | Letter from MOH  
MOH Budget  
DTC training manual  
Communication from reg. hosp. heads  
Report on training programme  
Written approval from heads of hospital  
Letter of appointment from hospital heads  
Survey of staff awareness of DTC  
Published SOPs  
Published rules of how DTC will function  
Minutes of meeting |
Name: Catherine Mukuka  
Country: Zambia – Lusaka Urban Health Board

Goals: Improve Compliance to STGs

<table>
<thead>
<tr>
<th>Activity</th>
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</table>
| Hold focus group discussions or interviews with clinical staff on reasons for non-compliance to STGs | *Tool developed from interviews/FGD.  
*Zoral DTC reps trained in use of tool.  
*Interviews/discussion field | By Sept. | *Reasons for non-compliance documented  
*Suggestions for compliance documented | *filled out interview/FSD documents analyzed  
*Intervention(s) initiated |
| Increase prescriber compliance to IMCI and STI guidelines by activating clinical meetings in 12 HCs | *Zoral DTC rep to introduce concept in HC MX meeting  
*Date for 1st meeting set  
*appoint discussant for 1st meeting | By Oct. | *Clinical meetings activation discussed & consensus on stalling reached  
*Date set  
*Discussant appointed  
*Clinical meeting held | *meeting held (source: minute) |
Name: Razeeya Khan  
Country: South Africa  

Goals: To set up a functional DTC at hospital level

<table>
<thead>
<tr>
<th>Activity</th>
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</tr>
</thead>
</table>
| To set up a functional hospital DTC           | Stakeholders informed & input invited  
Discussion document ratified and accepted  
Terms of reference adopted  
Training discussed                                                                 | Before 31 July 2003    | DTC formed         | Minutes of meeting                 |
| To train DTC members on activities and functions of DTC | Arrange for training:  
• Dates  
• Venue  
• Time  
• Format  
• Meals  
• Materials                                                                 | Before end of October 2003 | Training Conducted % of members trained | Trained DTC members  
Attendance register |
| To design a hospital formulary                | *Develop hospital formulary from provincial essential drugs list  
*Disseminate after ratification                                                          | Before the end of Nov. 2003 | Formulary available | Formulary                          |
Name: Hellecine Zeeman  
Country: South Africa

Goals: Review STG/EDL Primary Health Care level & hospital level adults & paediatrics

<table>
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</thead>
</table>
2) Submission of documents for printing purposes  
3) Availability of printed copies | End Sept. 2003 | %availability of books in health facilities | Verification of distribution lists for quantities & deliveries |
| Disseminate, launch & market 2003 edition of PHC STG/EDL book | 1) Ensure delivery of books to all providers  
2) Assist and support launching of books in provinces | Oct-Nov 2003 | % official launches held in provinces (promote use of STG/EDL books, pharmavigilance) | Feedback from provinces after (implementation launches)  
Check list |
| Start review process for hospital level STG/EDL for adults & paediatrics | 1) Initiate meetings for different expert working groups  
2) Ask for motivations for drugs on EDL from provinces  
3) Compile EDL hospital list | Aug 2003  
15 Aug 2003  
Feb 2004 | No. of meetings held with expert working groups  
No. of drugs deleted and added to list up to this period | Minutes of meetings.  
Database of drugs submitted and outcomes of submissions. |
**DTC Workshop – Workplan Proposal**

**Name: Mariam Cassimjee**

**Country: South Africa**

**Goals:**
1. Ensure sustainability of drug supply
2. Promote DTCs in districts/hospitals
3. Align where possible with WHO & the national EDLs
4. Review “Named Patient” items for Efficacy & Cost containment

<table>
<thead>
<tr>
<th>Activity</th>
<th>Milestone/Process Indicator</th>
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<th>Outcome Indicator</th>
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</tr>
</thead>
</table>
| **1) Ensure Sustainability of drugs**
  (a) Tenders in place for EDL drugs  
  (b) Inclusion of penalty clauses in tender contracts for the prolonged non-supply of drugs | • Address “no tenders in place” in committee with recommendations for matter to be taken up with national treasury.  
  • **Establish track record of supply over the past 12 months of two problematic companies Present details to the committee with recommendations for the Superintendent General to take up with the National Departments of Health and Treasury**  
  • Write to the S G for him to take up with National Treasury  
  • **Monitor monthly reports on the “Dues Out” document for improvement** | 30 June 2003 to 06 Aug 2003 with monitoring from date of implementation of revised tender contracts (1-2yrs) | For both (a) and (b):  
  • Tenders in place for EDL drugs  
  • No reports of “ No Tender in place” on monthly “Dues Out” document  
  • Reduction of non-supplies of drugs over extended periods. | Monthly provincial “Dues Out” document |
| **2) Promote DTCs in districts or hospitals.** | • Make proposal with plans – to include goals, targets, funding, priority sites and follow-ups with possible partnership of the University Antibiotic Surveillance Group  
  **Do workshops in district to promote DTC and activities → problem solve; site** | 07Aug 2003 with beginning of workshops on the 20 Oct 2003 | • Positive response for funding and proposal. | • Correspondence documents  
  • Database of active DTCs (Name; number) |
**Assessments including RDU**

- Support with good communication strategies (telephonically/faxes/emails/intranet website and bulletin)

<table>
<thead>
<tr>
<th>3) Align with WHO &amp; the national EDLs</th>
<th></th>
<th>4) Audit “Named patient” items for efficacy and costs</th>
</tr>
</thead>
</table>
| - Review hospital & paediatric NEDLs against WHO EDL for compliance and possible changes  
- Prepare document for the KZN PTC’s review with recommendation for changes based on the availability of drugs in S Africa  
- Submit to the NEDLC. | Begin 21 July 2003  
14 Aug 2003  
01 Sept 2003 to launch of reviewed documents. | 08 Sept 2003  
09 September to 30 September 2003  
06 Oct 2003 and quarterly |

- Number of DTCs formed in the province  
- Number of meetings held per DTC in a year.  
- Material or data discussed at DTC meetings relevant to DTC activities  
- Number of calls for assistance/guidance/supportive material of meetings with dates; submission of minutes)  
- Minutes/ reports  
- Log in of calls and correspondence documents.  
- Number of items on provincial EDL not on NEDL/WHO docs.  
- Reasons for inclusion of items on provincial EDL not on WHO/NEDL documents  
- The reviewed EDL documents  
- NEDL documents  
- WHO EDL document  
- Number of positive changes  
- Number of deletions from “Named Pt” lists  
- Number of substitutions on catalogue with the better entity based on EBM.  
- Minutes of meetings  
- Catalogue
**DTC Workshop:** Lusaka, Zambia.  

**Name:** Marsha Macatta-Yambi  

**Country:** Tanzania

**Goal:** Improved Quality of Pharmaceutical Services in Church Health Institutions in Tanzania.

<table>
<thead>
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</table>
| Revisit developed DTC guidelines with clear goals, objectives, TOR, DTC policies and SOPs | • Printed revised DTC guidelines  
• Sensitize the Church health staff  
• Disseminate the revised guidelines | Feb. 2004 | • Revised DTC guidelines  
• Targeted staff are trained and start formulating/strengthen their DTC  
• % of hospitals with functional DTC | • Records of their activities  
• Preparation of DTC interventions  
  - EDL  
  - STG  
  - Assessments  
    - ADR  
    - DUEs  
• Improved prescribing and dispensing habits |
| Soliciting funds for training of Church health workers on DTC | • Re-write of the proposal to include clear benefits the partners will get  
• Disseminate the revised proposal to donors | Jan. 2004 | • | • Donors identified  
• Funds available/ for DTC activities |
| Conduct DUE studies | • Human resources identified to conduct studies  
• Financial resources identified for the same | Aug. 2003 to Aug. 2004 | • Disseminate DUE studies results to donors and other stakeholders with proposed intervention.  
• # of studies conducted | • Prescription study  
• Case notes review |
| Conduct post intervention study | • Results compiled and reports prepared | Post intervention study results disseminated to | • Patient drug charts  
• Financial records |
| in patient antimicrobial use | stakeholders | • Stock control cards |
DTC WORKSHOP – WORK PLAN PROPOSAL

**Name:** Country: Zambia

**GOAL:** TO PROMOTE AND IMPROVE RATIONAL DRUG USE

<table>
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</tr>
</thead>
</table>
| 1. Publish, launch and disseminate STGs | Number of institutions where STGs have been distributed | August 2003  
September 2003 | Total number of copies printed  
STGs launched  
Number of institutions launched | Transparent tender process  
List of participants at the launch |
| | Printing done  
Launch | September 2003  
October 2003 | Use of STGs  
Number of institutions to whom STGs distributed | Number of people trained  
Change in prescribing habits |
| | Train  
-TOTs on use of STGs  
-Heads of department of major hospitals | October 2003  
December 2003 | | |
| 2. Assessment of prescribing habits | Develop an assessment tool and select pilot districts | October – November 2003 | Tool developed  
Assessment Report  
Dissemination Report | |
| | Conduct assessment  
Analyse data | October – November 2003 | Assessment done  
Analysis done | Assessment report |
ANNEX 8

Request for Country Clearance

TO: Robert Clay, Director PHN
    Barbara Hughes, Deputy Director PHN

FROM: Management Sciences for Health (MSH)/Rational Pharmaceutical Management Plus (RPM Plus) Program, Cooperative Agreement # HRN-A-00-00-00016-00


COPY: Anthony Boni/Global HPSR/CTO RPM
    Marni Sommer, USAID
    Douglas Keene, Director/RPM Plus Program
    Mohan Joshi, Project Manager for AMR/RPM Plus Program
    Oliver Hazemba, Regional Technical Advisior, Africa/RPM Plus Program


3. Background

   Infectious diseases continue to present a serious threat to countries worldwide where scarcity of resources is complicated by lack of drug availability and inappropriate use of the available drugs. Antimicrobial resistance (AMR) develops as a result of inappropriate prescribing and use of antimicrobials. USAID-funded Rational Pharmaceutical Plus (RPM Plus) Program of Management Sciences for Health (MSH) has been working in developing countries worldwide to introduce Drug and Therapeutics Committees (DTCs) as a method of managing the selection of appropriate drugs and improving drug use. This will serve as a means to improve drug selection, prescribing, and use and decrease or contain the spread of antimicrobial resistance (AMR). DTCs are considered a key intervention in the WHO Global Strategy to contain antimicrobial resistance in hospitals.

   DTC Training courses have been given in India, Indonesia, Jordan, Kenya, Moldova, Nepal, South Africa, and Thailand. Follow-up of course participants is provided via e-mail where they are provided technical assistance to complete workplans for DTC related projects. As a part of this follow-up to training courses, RPM Plus is organizing a DTC Workshop in Zambia.

   RPM Plus works in collaboration with WHO/EDM to organize and sponsor these training activities.

4. Purpose of Proposed Visit:

   The purpose of the trip is to conduct a three-day DTC Workshop for training course graduates and for others that have experience in DTCs. Participants represent hospital Drug and Therapeutic Committees, Ministry of Health officials, government/private hospitals and NGOs. The Workshop will be managed by the Zambia RPM Plus
Program and presented in collaboration with WHO/EDM. The workshop will be held at the Protea Hotel outside of Lusaka.

The goals of the workshop will be to explore what factors are important to make a DTC sustainable and to provide a forum on participant’s experiences, work-plan progress, accomplishments, and future plans to improve DTCs and drug use. During this workshop, technical assistance will be provided and interventions developed to further enhance national and local hospital DTC programs.

5. Scope of Work for the team is as follows:

- **Terry Green**
  - Act as co-director of the DTC Workshop
  - Conduct formulary management, standard treatment guidelines, and DTC overview sessions
  - Moderate participant presentations and discussions
  - Assist participants to make workplans for future work
  - Brief/debrief USAID officials if requested

- **Sandhya Rao**
  - Conduct M&E session during workshop
  - Interview participants and prepare a lessons learned/case study document on barriers and facilitators to DTC implementation
  - Assist participants in the preparation of workplans and performance monitoring plans
  - Liaise with JHPIEGO on data collected for RPM Plus assessment on drug management for USAID PPH.
  - Brief/debrief USAID officials if requested

6. Anticipated Contacts:

   Barbara Hughes, Deputy Director PHN  
   Dr. Verepi Mtonga, Director of Clinical and Diagnostics Programs  
   Dr. Ben Chirwa, Director General  
   Kathy Holloway, WHO/EDM

6. Logistics: Terry Green will arrive in Lusaka on June 21, 2003 and will depart on June 28, 2003. Sandhya Rao will arrive on June 22th and depart on June 28th. Both will be staying at the workshop venue, Protea Hotel. No Mission assistance is required.
7. Funding: The in-country work proposed will be paid for with RPM Plus AMR Global funds.

8. Action: Please inform RPM Plus program whether country clearance is granted for the activity to take place as proposed. Please reply via e-mail to the attention of Anthony Boni, USAID/G/PHN/HN/HPSR, e-mail address: aboni@usaid.gov, tel (202) 712-4789, fax (202) 216-3702. Please send copies to Marni Sommer at msommer@usaid.gov, Douglas Keene at dkeene@msh.org and Mohan Joshi at mjoshi@msh.org, Terry Green at tgreen@msh.org, Sandhya Rao at srao@msh.org, Oliver Hazemba at ohazemba@msh.org and Fiona Abolade at fabolade@msh.org. We appreciate your cooperation.